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APPLICANT : TATSUTA ELECTRIC WIRE & CABLE CO LTD;

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TITLE : COPPER ALLOY HAVING SUPERIOR HEAT RESISTANCE AND ELECTRIC CONDUCTIVITY

ABSTRACT : PURPOSE: To provide the titled inexpensive Cu alloy also having superior mechanical strength and easy to manufacture by restricting a composition consisting of Sn, Sb and Cu.

CONSTITUTION: This Cu alloy consists of 0.02~0.15wt% in total of $\geq 0.006\%$ each of Sn and Sb and the balance essentially Cu and has superior heat resistance, mechanical strength, electric conductivity, heat conductivity and formability. The alloy is easily manufactured, is inexpensive and suitable for use as a material for a terminal lead wire for electronic machine parts, a lead frame or the like. In case of $< 0.006\%$ each of Sn and Sb and $< 0.02\%$ Sn+Sb, the heat resistance of the Cu alloy is not satisfactorily improved, and in case of $> 0.15\%$ Sn+Sb, the electric conductivity is reduced, so the composition of the alloy is restricted as mentioned above. It is preferable that oxygen-free copper contg. about 0.0001~0.005% oxygen is used so as to attain far superior formability.

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